



August 15, 2016

To Whom It May Concern:

The City of Sumter is soliciting **SEALED** bids for the items listed below. Please list the cost of each item separately. Delivery charges and taxes will also be listed separately. All bids ***MUST*** be received by the Purchasing Department on or before 2:00 PM on September 15, 2016 in the City of Sumter Opera House. **SEALED** Bids may be Mailed or Hand Delivered (BIDS WILL BE REJECTED IF RETURNED VIA FAX OR EMAIL).

*PLEASE SEE ATTACHMENT FOR QUANTITIES, DESCRIPTION, DETAILS AND SPECIFICATIONS.

*ALL BIDS MUST SPECIFY PER UNIT COST WHEN SHOWN IN SPECIFICATIONS, IF APPLICABLE. DO NOT PROVIDE LUMP SUM ONLY IF YOU CAN PROVIDE UNIT COST.

*ALL DEVIATIONS FROM REQUESTED SPECIFICATIONS MUST BE CLEARLY NOTED ON BID RESPONSE.

Anyone wishing to mail bids should address the envelope as follows:

City of Sumter
Attn: Purchasing Department
P.O. Box 1449
Sumter, SC 29151
ITB #6 – 16/17: Painting Exterior of Elevated Water Tank – WP #3

The bid ITB number and name must appear on the envelope. Please direct questions concerning specifications/items, and to schedule an inspection of the site to Allen Catoe at 803-968-5722 or email: acatoe@sumter-sc.com. If you have questions concerning the bid process, call Tony Butts at 803-774-5197 or email. The City reserves the right to reject any or all bids and to waive any technicalities in the best interest of the City.

Sincerely,

Anthony J. Butts, Jr. (Tony)
Purchasing Specialist
E-mail: tbutts@sumter-sc.com



CITY OF SUMTER BID FORM

City of Sumter, South Carolina, a Body Politic and Corporate and Political Subdivision of the State of SC
FORMAL INVITATION-TO-BID: #6-16/17

NAME OF BID: Painting Exterior of Elevated Water Tank – WP #3

BID MUST BE RECEIVED BY: Thursday September 15, 2016 at 2:00 pm at below address.

OVERNIGHT OR HAND CARRY TO:

City of Sumter Opera House (City Hall)

Attention: Purchasing Dept

21 N. Main Street

Sumter, SC 29150

ITB #6 – 16/17: Painting Exterior of Elevated Water Tank – WP #3

Quantity Size/Description/Specs/Details

***PLEASE SEE ATTACHMENT FOR QUANTITIES, DESCRIPTION, DETAILS AND SPECIFICATIONS.**

***ALL DEVIATIONS FROM REQUESTED SPECIFICATIONS MUST BE NOTED ON YOUR BID RETURN.**

*****THE REQUIRED PAINT SPECIFICATIONS ARE ATTACHED-NO SUBSTITUTIONS*****

(Inspection of the site is by appointment only. Please contact Allen Catoe at 803-968-5722 or acatoe@sumter-sc.com to Schedule an appointment).

**Delivery To: City of Sumter Utility Department – Water Plant #3
2075 Corporate Way
Sumter, SC 29150**

VENDOR NAME: _____

ADDRESS: _____

CITY-STATE-ZIP: _____

TELEPHONE NO: _____ **FAX NO:** _____

FEDERAL ID (TAX ID) NO: _____

AUTHORIZED SIGNATURE (WRITTEN): _____

AUTHORIZED SIGNATURE (TYPE/PRINT): _____ **DATE:** _____

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and verify that I am authorized to sign this bid for the offerer. I further state that the company affiliated with this bid currently complies with all applicable federal and state laws and directives relative to non-discriminatory practices in employment.

The Bidder, in compliance with your Invitation-To-Bid, and having examined the Project Documents, and being familiar with all of the conditions surrounding the proposed project, including the availability of materials, labor, and work site environmental conditions, hereby proposes to furnish all permits, labor, materials, supplies, and equipment and to perform the duties in accordance with the contract documents of which this Bid Form is a part.

The undersigned, as Bidder, hereby declares that he has read, understands, and accepts the Vendor Agreements which are part of the bid documents.

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid as principal(s) is, or are, named herein and that no other person has any interest in the Bid or in the contract to be entered into; that this Bid is made without connection with any other person, company or parties making a bid; and that is in all respects fair and in good faith without collusion or fraud.

The Bidder further proposes and agrees, if this Bid is accepted, to contract with City of Sumter, to furnish all permits, materials, equipment, tools, apparatus, means of transportation, and labor necessary hereto, and to complete the proposed project in full and complete accordance with the Project Documents, to the full and entire satisfaction of the Owner, at the prices listed in the Bid Schedule.

Names of equipment and material suppliers, proposed subcontractors and other information that maybe requested herein must be shown. My failure to do so may result in the rejection of this Bid.

The amounts listed on the Bid Schedule section of this Bid Form include all permits, labor, materials, tools, equipment, transportation, removal, overhead, profit, insurance, taxes, permits, and other costs both indirect and direct, etc., to complete the Project. The amounts listed on the Bid Schedule section of this Bid Form also include all costs associated with the compliance of all applicable State laws, local ordinances, and the rules and regulations of all authorities and professional association standards having jurisdiction over the project or the materials used throughout, and they will be deemed to be included in the contract the same as though herein written out in full. Unit prices and/or lump sums are shown in the Bid Schedule section below. In case of error in extension, the Unit Price shall govern rather than the Total Amount. Where Lump Sum Amounts are bid, the amount for each bid item shall govern rather than the total of any several items.

BID SECURITY – ALL BIDS \$25,000 AND OVER

Each Bid MUST be accompanied by cash, certified check of the bidder or a bid bond prepared on the Form of Bid Bond attached hereto, duly executed by the bidder as principal and having the surety thereon, a surety company approved by the Owner (City of Sumter), in the amount of 5% of the bid. Such cash, checks, or bid bonds will be returned to all EXCEPT the three lowest bidders within three business days after the opening of bids, and the remaining cash, checks, or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract, or if no award has been made within 60 days after the date of the opening of the bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

BID BOND

KNOW ALL MEN BY THESE PRESENTS: that we, the undersigned,

_____ As Principal, and

_____ As Surety, are hereby

held and firmly bound unto the City of Sumter ("Owner") in the penal sum of

_____ for payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed this _____ day of _____, 20____. The condition of the above obligation is such that whereas the Principal has submitted to the Owner a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with BID) and shall furnish a BOND for his faithful performance of said contract, shall furnish a BOND for the payment of all persons performing labor or furnishing materials in connection therewith, shall provide proof of insurance as required by the contract documents, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the Owner may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hand and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Principal:_____ / Surety:_____

By:_____ (SEAL)

VENDOR AGREEMENTS – FORMAL INVITATIONS-TO-BID

Submittal of Sealed (Formal) Bids On the date set and at the time designated for the opening of the sealed bid, each prospective bidder is required to submit the bid deposit in the amount and form specified herein. Outside of envelope containing the sealed bid must be clearly marked: **Invitation-to Bid # X Bid Name**. Each prospective bidder is required to complete and execute the bid form attached in this Invitation to Bid, and all information and certifications called for thereon must be furnished. Bids submitted in any other manner or which fail to furnish all information or certifications required may be summarily rejected. Bids shall be filled out legibly with all erasures, strikeouts, and corrections initialed by the person signing the bid and the bid must be manually signed. Negligence on the part of the bidder in preparing the bid confers no right for withdrawal or modification of the bid.

City of Sumter reserves the right to obtain clarification or additional information necessary to properly evaluate a bid. Failure of vendor to respond to a request for additional information or clarification could result in rejection of that vendor's bid. City of Sumter reserves the right to accept or reject any and all bids, in whole or in part, separately or together, with or without cause; to waive technicalities in submissions, to secure a project that is deemed to be in the best interest of the City. City of Sumter also reserves the right to make purchases outside of the awarded contracts where it is deemed in the best interest of the City.

Each responder, by submitting a bid to the City of Sumter a result of this Invitation-to-Bid, agrees to and acknowledges its acceptance of and agreement with the procedures outlined herein and all terms, conditions and requirements of the applicable City of Sumter Bid documents. If a vendor cannot agree to these terms, or violates these procedures, the response will be judged non-responsive and not considered. If the procedures are violated during the evaluation process or prior to the issuance of a contract by the City of Sumter, the offer of the firm in question will be void and City of Sumter will procure the goods/services in question from other eligible vendors.

At the time of the opening of bids, each responder will be presumed to have read and to be thoroughly familiar with the Documents (including all addenda). The failure or omission of any responder to examine any form, instruction or document shall in no way relieve any responder from any obligation in respect to this Invitation-to-Bid.

Responses submitted are final and complete offers by the vendor. No additions, corrections, modifications, changes or interpretations will be allowed. In the event questions arise on what is meant by an offer, the Purchasing Manager will make a determination as to the city's interpretation of the vendor's offer. If, after informing the vendor of the city's opinion, disagreement as to scope of the offer is present, the offer will be declared VOID. City of Sumter reserves the right to award proposals received on the basis of individual items, groups of items, or the entire list of items; to reject any and all proposals; and to waive any technicalities. In every case, the City reserves the right to make awards deemed to be in the best interest of the City and to negotiate further the offer determined by the City to be in the best interest of the City. Unit prices will govern over extended prices. Prices must be stated per unit and extended for the total quantity. Sales, use, or excise tax, as well as any handling and shipping charges, must be shown as separate items. The Owner reserves the right to increase or decrease the amount of work under the Contract at the unit prices quoted in the bid received from the successful responder.

Responders must clearly mark as "Confidential" each part of their offer which they consider proprietary information that could be exempt from disclosure under Section 30-4-40, Code of Laws of South Carolina, 1976 as amended (Freedom of Information Act). If any part is designated as "confidential", there must be attached to that part an explanation of how this information fits within one or more categories listed in Section 30-4-40. City of Sumter reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against City of Sumter or its agents for its determination in this regard. Should any responder fail to perform or comply with any provision or terms and conditions of any documents referenced and made part hereof, City of Sumter may terminate this contract, in whole or in part, and may consider such failure or non compliance a breach/default of contract.

The City reserves the right to purchase any/all items or service in default on the open market. No additional responses will be considered from a firm in default until the default expenses are paid. No principals of a defaulting firm may submit a response under another organization or individual name until their previous default is settled.

Upon award of a contract or Purchase Order under this proposal, the person, partnership, association, or corporation to whom the award is made must comply with the laws of South Carolina, which require such person or entity to be authorized and/or licensed to do business in this state. Notwithstanding the fact that applicable statutes may exempt or exclude the successful responder from requirements that it be authorized and/or licensed to do business in this state, by submission of this signed proposal, the responder agrees to subject itself to the jurisdiction and process of the courts of the State of South Carolina, to all matters and disputes arising or to arise under the contract and performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.

RIGHT TO INCREASE OR DECREASE THE AMOUNT OF WORK: The Owner reserves the right to increase or decrease the amount of work under the Contract at the unit prices quoted in the bid received from the successful responder.

LAW AND REGULATIONS: The responder's attention is directed to the fact that all applicable Federal, State and Local laws, statutes, ordinances, and the rules and regulations of all authorities having jurisdiction over the project shall apply to the contract and the project throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

OBLIGATION OF RESPONDER:

The Responder agrees to secure at Responder's own expense all personnel necessary to carry out Responder's obligations under this Bid. Such personnel shall not be deemed to be employees of the City nor shall they or any of them have or is deemed to have any direct contractual relationship with the City. The City shall not be responsible for withholding taxes with respect to the Responder's compensation hereunder. Responder shall not hold himself out as an employee of the City, and shall have no power or authority to bind or obligate the City in any manner, except the City shall make payment to Responder for services as herein provided. Responder shall obtain and maintain all licenses and permits required by law for performance of this contract by him. The Responder shall have no claim against the City hereunder or otherwise for vacation pay, sick leave, retirement benefits, social security, worker's compensation, health or disability benefits, unemployment insurance benefits, or employee benefits of any kind, State or Federal governments' benefits, including but not limited to Social Security, workmen's compensation, Employment Security, sales or use tax and any other taxes and licenses or insurance premiums required by law. The City shall pay no employee benefits or insurance premiums of any kind to or for the benefit of Responder or his employees, agents, and servants by reason of this contract. The Responder will carry liability insurance relative to any service that he performs for the City. A certificate of insurance must be submitted to the purchasing office prior to services performed, with the requested coverage and limits per the City, with City of Sumter listed as additional insured.

1. Contractor's and Subcontractor's Insurance: Before commencing the Work, and until completion and final acceptance of the Work, the Contractor shall procure and maintain, at its own expense, the insurance coverages described below. Before starting the Work, Contractor shall furnish a Certificate of Insurance, in a form acceptable to Owner, evidencing the Contractor's compliance with the Agreement's insurance requirements. All insurance policies are to be written through a company duly authorized to transact that class of insurance within the jurisdiction of the Project site and shall be with insurance companies acceptable to Owner and with A.M. Best Rating of A minus or better. The Certificates and policies for the Commercial General Liability and Business Automobile Liability Policy shall name Owner, and if requested, Owner's agents, as Additional Insureds for completed and ongoing operations on a primary and non-contributory basis. All Insurance Certificates shall state policy numbers, dates of expiration, policy limits, and provide that the insurance will not be cancelled or changed unless Owner has been given written notice at least thirty (30) days prior to the date of the proposed change or cancellation.

If the Contractor fails to procure or maintain required insurance coverages, Owner shall have the right, but not the obligation, to procure and maintain the required insurance for and in the name of the Contractor, and Contractor shall pay the cost thereof and furnish all necessary information to make effective and maintain such insurance. Contractor shall not commence work until all insurance requirements are met.

a. **Required Insurance Coverages:** The insurance coverages to be provided include those as set forth below unless modified in an Insurance Exhibit attached to the Agreement:

(1) **Commercial General Liability Insurance** with limits of \$1,000,000.00 per occurrence/\$1,000,000 aggregate Bodily Injury and Property Damage Liability. This coverage must, at a minimum, include coverage and/or endorsements for premises operations, products/completed operations, contractual liability assumed by Contractor under this Agreement, personal injury, advertising injury and broad form Property Damage (including coverage for explosion, collapse and underground hazards), and independent Contractor coverages. All liability policies must be written on an "occurrence" basis. Such policy shall not contain Endorsement, CG 22 94 10 01. The Commercial General Liability and Automobile Liability insurance required herein shall protect the Contractor and the Owner against liability from damages growing out of any Contractor operations (including the operation of all automobiles, trucks, and other vehicles owned or rented) in connection with the performance of this Agreement, as well as liability arising after the completion of the Contractor's operations.

(2) **Motor Vehicle Liability Insurance** with bodily injury limits of \$1,000,000.00 and property damage limits of \$1,000,000.00 or a combined single limit of \$1,000,000.00.

(3) **Worker's Compensation** in accordance with, and providing coverages meeting or exceeding the limits required by, the laws of the State of South Carolina jurisdiction, and Employer's Liability Insurance with the following minimum limits: \$100,000 Per Accident, \$100,000 Per Disease for Each Employee, \$500,000 aggregate.

(4) **Excess or Umbrella Liability Insurance** with a policy limit of \$1,000,000.00 per occurrence and aggregate.

(5) **Sub-Contractor Insurance:** If Contractor elects, with Owner's approval, to subcontract any portion of the Work to another Contractor, Contractor shall require of such Subcontractor insurance coverage similar to that required of Contractor hereunder and shall furnish to Owner evidence that such insurance coverages are currently in effect. Moreover, Contractor shall require any such Subcontractor to name Contractor and Owner as additional insured's on Subcontractor's Commercial General Liability Insurance and will provide Contractor with a waiver of subrogation form from such sub-Contractors worker's compensation carrier. Failure of Contractor to require Subcontractor to obtain the coverages required herein or to furnish Owner evidence of such coverage shall be grounds for termination for default.

b. The Contractor shall furnish one copy of each Certificate of Insurance herein required attached to each copy of the Agreement, plus three additional copies of each Certificate of Insurance herein required, which shall specifically set forth evidence of all coverages set forth above. The Contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits.

2. Payment and Performance Bonds (CONSTRUCTION BIDS ONLY): If the Contractor's work as set forth in the Scope of Work exceeds \$50,000.00, Contractor shall provide payment and performance bonds in the full amount of the Contract Sum.

a. The payment and performance bonds, if any, shall name Owner as the obligee. Such bonds must be secured by cash or must be issued by a surety company licensed in the State of South Carolina with an "A" minimum rating of performance as stated in the most current publication of "Best Key Rating Guide, Property Liability".

b. Upon execution of the Contract Documents, the Contractor shall furnish to the Owner a Performance Bond and a separate Labor and Material Payment Bond in a form acceptable to the Owner. The bonds shall guarantee the Contractor's faithful performance of the Contract and payment of all obligations arising thereunder. The bonds shall remain in force until the Work has been completed and accepted by the Owner, the provisions of all guarantees required by these Contract Documents have been fulfilled, and the warranty periods and period for correction of the Work as provided in the Contract Documents have expired, or the period for filing mechanics' liens has expired, whichever occur latest, after which time the bonds shall lapse. The Contractor shall bear all costs in connection with the bonds as a part of the Contract. One executed copy of each bond shall be attached to each executed copy of the Contract Documents prior to the execution of the Contract Documents by the Owner.

c. The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

For construction contracts, all items delivered to or drop shipped to the City of Sumter site remain the sole responsibility of the Bidder until fully installed and attached to the City of Sumter which is the subject of this bid; Bidder is solely responsible for maintaining insurance on and replacing said items in the event of theft, damage, or other loss.

Each of the bidders shall fully familiarize itself with the conditions relating to the bid to insure complete understanding of all the details involved. The bidder shall satisfy itself as to the actual requirements of the bid by personal examination of its location or other means, so as to enable the bidder to make an informed bid. Failure to do so shall not relieve the successful bidder of its obligation to furnish all materials, products, and/or labor necessary to complete the provision of the awarded contract and failure to do so may result in the claims against bonds. No allowance will be made for any claims that a bid and/or response was based on incomplete information as to the nature and character of the sites and of the work involved.

The responder shall indemnify, defend and hold harmless City of Sumter, its officers, agents and employees from liability and any claims, suits, judgments, and damages of any nature brought because of, arising out of, or due to breach of the agreement by Responder, its subcontractors, suppliers, agents, or employees or due to any negligent act or occurrence or any omission or commission of Responder, its subcontractors, suppliers, agents, or employees.

The successful responder shall indemnify and hold harmless the City of Sumter, its officers, agents and employees from all suits or claims of any character resulting from patent, trademark or copyright infringement or accidents/injury at any point in the delivery of goods/services.

Should any responder fail to perform or comply with any provision or terms and conditions of any documents referenced and made part hereof, City of Sumter may terminate this contract, in whole or in part, and may consider such failure or non compliance a breach/default of contract. The City reserves the right to purchase any/all items or service in default on the open market. By submittal of a response, all responders agree to this provision. No additional responses will be considered from a firm in default until the default expenses are paid. No principals of a defaulting firm may submit a response under another organization or individual name until their previous default is settled.

City of Sumter may terminate this agreement with or without cause at anytime. In the event of termination by either party, uncontested fees due for services satisfactorily performed or goods accepted prior to the termination shall be paid.

S.C. LAW CLAUSE: Upon award of a contract or Purchase Order under this bid, the person, partnership, association, or corporation to whom the award is made must comply with the laws of South Carolina, which require such person or entity to be authorized and/or licensed to do business in this state. Notwithstanding the fact that applicable statutes may exempt or exclude the successful responder from requirements that it be authorized and/or licensed to do business in this state, by submission of this signed proposal, the responder agrees to subject itself to the jurisdiction and process of the courts of the State of South Carolina, to all matters and disputes arising or to arise under the contract and performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.

ATTACHMENT:

Elevated Tank Specifications
City of Sumter
Water Plant # 3

Location: 2075 Corporate Way- Sumter, SC
Total Height: 139 feet
Bowl Depth: 30 feet
Capacity: 500,000 Gallons
Year Built: 1976

The City of Sumter is soliciting bids for the Items listed below. Please list the cost of each item separately. The bid must specify the paint system that will be used. (Tnemec or Sherwin Williams,) The specifications for each system are attached. No substitutions will be allowed. Delivery charges and taxes will also be listed separately.

SCHEDULE OF BIDS:

(1) Labor, material and supervision to prepare surface and paint (overcoat) the exterior of the Water Plant # 3 Multi Column Elevated Tank including two Sumter logos located at 2075 Corporate Way in Sumter, SC.

Lump Sum: \$_____

(2) Inspect & Provide photo documentation of locked manways and properly screened vents on 12 Elevated Tanks located throughout Sumter County.

Lump Sum: \$_____

Total Bid: \$_____



**CITY OF SUMTER
SECTION 09 97 00
STEEL WATER TANK COATING SYSTEMS (MAINTENANCE PAINTING)**

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
1. Work under this section consists of surface preparation, shop or field priming and field painting necessary to complete work.
 2. Use coating systems specified in this section to finish all water tank components, unless otherwise indicated. Without restricting volume or generality, work to be performed under this section may include, but is not limited to:
 - a. Exterior steel
 - b. Interior steel
 - c. Piping, hangers, and supports

1.02 REFERENCES

List of standards that may be referenced in this section, complete with designations and titles. These standards may be identified here and referenced in other parts of this section by their acronym and alpha/numeric designation only. This Section does not require compliance with these standards, but is merely a listing of those that may be referenced.

- A. Publications listed are part of this specification to extent referenced.
- B. American Society for Testing and Materials:
1. ASTM D16 Terminology Relating to Paint, Varnish, Lacquer, and Related Products
 2. ASTM D3359 Test Method for Measuring Adhesion by Tape Test
 3. ASTM D4263 Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
 4. ASTM D4541 Test Method for Pull Off Strength of Coatings Using Portable Adhesion-Testers
 5. ASTM D1005 Test for determining dry film thickness
 6. ASTM D4417 Test for determining surface profile
- D. The Society for Protective Coatings:
1. SSPC-SP1 Specification for Solvent Cleaning
 2. SSPC-SP2 Specification for Hand Tool Cleaning
 3. SSPC-SP3 Specification for Power Tool Cleaning
 4. SSPC-SP5 Specification for White Metal Blast Cleaning
 5. SSPC-SP6 Specification for Commercial Blast Cleaning
 6. SSPC-SP7 Specification for Brush-Off Blast Cleaning
 7. SSPC-SP10 Specification for Near White Metal Blast Cleaning
 8. SSPC-SP11 Specification for Power Tool Cleaning to Bare Metal
 9. SSPC-SP15 Specification for Commercial Power Tool Cleaning
 10. SSPC-PA1 Painting Application Specification

10. SSPC-PA2 Measurement of Dry Paint Thickness with Magnetic Gages
11. SSPC-SP12 Surface Preparation ... by High and Ultra-High Pressure

1.03 DEFINITIONS

- A. The term *PAINT* shall in a general sense have reference to zinc primers, acrylic, polyurethane and epoxy type coatings and application of these materials.
- B. DRY FILM THICKNESS (DFT): Thickness, measured in mils (1/1000 inch), of a coat of paint in cured state.

1.04 SUBMITTALS

- A. Product Data:
 1. Submit manufacturer's literature describing products to be provided, giving manufacturer's name, product name, and product line number for each material.
 2. Submit technical data sheets for each coating, giving descriptive data, curing times, mixing, thinning, and application requirements.
 3. Submit color charts showing manufacturer's full range of standard colors.
- B. Quality Assurance Submittals:
 1. Certificates:
 - a. Provide manufacturer's certification that products to be used comply with specified requirements and are suitable for intended application.
 - b. Submit listing of not less than 5 of applicator's most recent applications representing similar scope and complexity to Project requirements. List shall include information as follows:
 - i) Project name and address
 - ii) Name of owner
 - iii) Name of contractor
 - iv) Name of engineer
 - v) Date of completion
 2. Manufacturer's Instructions:
 - a. Submit manufacturer's installation procedures, if not on product data sheets, which shall be basis for accepting or rejecting actual installation procedures.

1.05 QUALITY ASSURANCE

- A. Qualifications:
 1. Applicator shall be trained in application techniques and procedures of coating materials and shall demonstrate a minimum of 5 years successful experience in such application.
 - a. Maintain, throughout duration of application, a crew of painters who are fully qualified.
 2. Single Source Responsibility:
 - a. *PAINT* shall be of a single manufacturer.
 - b. Secondary materials, which are produced or are specifically recommended by coating system manufacturer, may be used.

- B. Pre-Installation Meeting:
1. Schedule a meeting to be held on-site before field application of coating systems begins.
 2. Meeting shall be attended by Contractor, Owner's representative, Engineer, Coating Applicators, and Manufacturer's representative.
 3. Topics to be discussed at meeting shall include:
 - a. A review of Contract Documents and deviations or differences to be resolved.
 - b. Environmental conditions, surface conditions, surface preparation, application procedures, and protection following application.
 - c. Which areas on-site will be available for use as storage and working areas.
 4. Prepare and submit, to parties in attendance, a written report of pre-installation meeting. Report shall be submitted within 3 days following meeting.

1.06 DELIVERY AND STORAGE

- A. Packing and Shipping:
1. Deliver products in manufacturer's original unopened containers. Each container shall have manufacturer's label, intact and legible.
 2. Include on label for each container:
 - a. Manufacturer's name
 - b. Type of paint
 - c. Manufacturer's stock number
 - d. Color name and number
 - e. Instructions for thinning, where applicable
- B. Storage and Protection:
1. Store materials in a designated protected area in accordance with Product Information instructions.

1.07 PROJECT CONDITIONS

- A. Environmental Requirements:
1. Apply coating materials per manufacturer's printed data sheet instructions:
 - a. Refer to specific product data sheets for minimum surface temperature requirements. Surface temperatures shall be at least 5 degrees F (15 degrees C) above dew point and in a rising mode.
 - b. Provide for proper ventilation using explosion proof equipment. Allow to operate during the complete cure cycle of the coating
 - c. Adequate illumination shall be provided using explosion proof lights and equipment.
 - d. Atmosphere shall be free of airborne dust.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. This specification lists products manufactured by The Sherwin Williams Company, Protective & Marine Division. No substitutions will be allowed.

2.02 COATING MATERIALS

REPAINT – STEEL WATER STORAGE TANK

Exterior (Clean / Full Recoat) Coating System:

Scope: This specification applies to maintenance repainting of existing tanks when the generic type and condition of the existing coating system has been predetermined and compatibility tests have been conducted. This system exceeds the requirements of SSPC-TU 3 Overcoating.

Surface Preparation: Remove all visible oil, grease, soil, dirt, mildew, and other soluble contaminants by using a min. 3500 psi pressure washer with a rotating nozzle and Great Lakes Laboratories Extra Muscle Prepaint Cleaner, CHLOR*WASH or similar shall be used prior to power washing to help remove all the existing contaminants. Ensure all solubles have been removed. Clean per SSPC-SP3 Power Tool to remove all rust, corrosion and film issue areas, feather the edges to a tight and smooth transition and spot prime all cleaned areas with Macropoxy 646 FC Epoxy, B58-600 Series @ 2.0-4.0 dry mils. The surface shall be clean and dry before painting.

Prime Coat: Apply one coat of Sherwin Williams Macropoxy 646 Fast Cure Epoxy (B58 Series) at a dry film thickness of 2.0 to 4.0 mils., approved reducer R7K15

Intermediate Coat: Apply one coat of Sherwin Williams Acrolon 218 HS Polyurethane (B65-600 Series) at a dry film thickness of 2.0 to 3.0 mils., approved reducers R7K15, R7K111, R7K132

Finish Coat: Apply one coat of Sherwin Williams Fluorokem HS Polyurethane, (B65-580 Series), at a dry film thickness of 2.0-3.0 mils., approved reducer R7K111 no more than 5%. Color shall be selected by the owner.

Logo: Apply two coats of Sherwin Williams FluoroKem HS (B65-580 Series) at a dry film thickness of 2.0 to 3.0 mils. The owner will determine the color of the lettering.

Caulking: Fill all gaps between the concrete foundation and the bottom steel plates with Sherwin Williams Loxon S1 Polyurethane Sealant.

Concrete Foundation: The concrete foundation shall be cleaned and receive two coats of Sherwin Williams Loxon XP Waterproofing System, A24-1400 Series

Interior (Near White Blast) Zinc/ Epoxy / Epoxy Coating System:

Scope: The following Near White Blast specifications apply to maintenance repainting of existing tanks when the existing interior coating system is completely removed by abrasive blast cleaning. This system exceeds the requirements of the AWWA D102 Inside Coating System (ICS) No. 5.

Surface Preparation: Remove all visible oil, grease, soil, dirt and other soluble contaminants in accordance with SSPC-SP1. The entire surface shall be Near White Blast Cleaned by the recommended methods outlined in The Society for Protective Coatings Specification SSPC-SP10 (NACE No. 2).

Prime Coat: Apply one coat of Sherwin Williams Corothane 1 2K Gal-Va-Pak Zinc at a dry film thickness of 2.0 – 4.0 mils

Stripe Coat: Apply to all weld seams, structural edges and bolted connections a stripe coat of Sherwin Williams Macropoxy 5500 PW Epoxy, B58-X740 Series at a dry film thickness of 2.0 to 8.0 mils.

Second Coat: Apply one coat of Sherwin Williams Macropoxy 5500 PW Epoxy, B58-X740 Series, at a dry film thickness of 4.0 to 8.0 mils.

Third Coat: Apply one complete coat of Sherwin Williams Macropoxy 5500 PW Epoxy B58-X740 Series at a dry film thickness of 4.0 to 8.0 mils.

2.03 ACCESSORIES

A. Coating Application Accessories:

1. Provide application accessories as indicated in coating manufacturer's application instructions, including but not limited to cleaning agents, etching agents, cleaning cloths, sanding materials, and clean-up materials.
2. Material not specifically identified, but needed for proper application shall be of a quality not less than specified products.

2.04 MIXING Instructions: Specific product mixing and thinning instructions are to be found in the manufacturer's printed data sheets.

PART 3 EXECUTION

3.01 EXAMINATION

A. Site Verification of Conditions:

1. Examine areas and conditions under which application of coating systems shall be performed for conditions that will adversely affect execution, permanence, or quality of coating system application.
2. Correct conditions detrimental to timely and proper execution of Work.
3. Do not proceed until unsatisfactory conditions have been corrected.
4. Commencement of installation constitutes acceptance of conditions and responsibility for satisfactory performance.

3.02 PREPARATION

A. Protection:

1. Take precautionary measures to prevent fire hazards and spontaneous combustion. Remove empty containers from site at completion of each days work.
2. Provide drop cloths, shields, and other protective equipment.
3. Protect elements surrounding work from damage or disfiguration.
4. As Work proceeds, promptly remove spilled, splashed, or splattered materials from surfaces. Leave storage area neat and clean at all times.

B. Surface Preparation:

1. General Requirements:
 - a. Prior to application of *PAINT*, surfaces shall be prepared to receive specified paintings system in compliance with these specifications.
 - b. Surfaces to be coated shall be clean, dry and free from dust and any foreign matter that might adversely affect adhesion or appearance.

2. Ferrous Metal Surfaces:
 - a. Field welds and touch-ups shall be prepared to conform to specified surface preparation standards.
3. Galvanized Steel Surfaces:
 - a. Solvent clean metal to remove contamination and oils in compliance with SSPC-SP1.
 - b. Brush blast to abrade the surface.

3.03 APPLICATION

A. General Requirements:

1. Apply coating systems in compliance with manufacturer's instructions and using application method best suited for obtaining full, uniform coverage and hide of surfaces to be coated.
 - a. Work shall be implemented in compliance with applicable sections of AWWA D102 latest revision.
2. Apply primer, intermediate, and finish coats to comply with wet and dry film thicknesses and spreading rates for each type of material as recommended by manufacturer and in accordance with SSPC-PA2.
3. Number of coats specified shall be minimum number acceptable. Apply additional coats as needed to provide a smooth, even application.
 - a. Closely adhere to re-coat times recommended by manufacturer. Allow each coat to dry thoroughly before applying next coat. Provide adequate ventilation for tank interior to carry off solvents during drying phase.
4. Employ only application equipment that is clean, properly adjusted, and in good working order, and of type recommended by coating manufacturer.
5. After surface preparation, spot primer on interior weld seams shall be brush applied.

B. Thinning: Thinning requirements for specified products are to be found in the paint manufacturer's printed data sheets and are to be strictly adhered to.

C. Disinfection and Filling of Tank:

1. Provide adequate ventilation for proper drying and curing of paint on interior surfaces and which will remove solvent vapors.
2. Following final application, tank shall not be disinfected or filled until coating system is fully cured.
3. Refer to applicable product data sheet(s) for dry time/temperature requirements. Disinfection (if specified) shall be in compliance with AWWA C652, or as instructed by Engineer.

D. Interface with Other Work:

1. Allow a minimum of seven days curing time after application of final coat to tank interior before flushing, disinfecting or filling with water.

3.04 REPAIR/RESTORATION

- A. At completion of Work, touch-up and restore finishes where damaged.
- B. Defects in Finished Surfaces:
 - 1. When stain, dirt, or undercoats show through final coat, correct defects and cover with additional coats until coating is of uniform finish, color, appearance and coverage.
- C. Touch-up of minor damage shall be acceptable where result is not visibly different from surrounding surfaces. Where result is visibly different, either in color, sheen, or texture, recoat entire surface.

3.05 FIELD QUALITY CONTROL

- A. Inspector's Services:
 - 1. Documents:
 - a. Review Contract Documents and applicable sections of referenced standards.
 - 2. Field Painting Inspection:
 - a. Verify cleaning operations to surfaces are to condition specified.
 - b. Verify conformance of paint to specification.
 - c. Check for thickness of each coating, final thickness and holidays.
 - d. Check touch-up for final finish.
 - e. Contractor will have both wet and dry film gauges onsite for inspector's use.
 - 3. Reports:
 - a. Submit written progress reports describing inspections made and showing action taken to correct non-conforming work. Report uncorrected deviations from Contract Documents.
- B. Manufacturer's Service:
 - 1. A representative of the paint manufacturer shall be available to provide on-site technical assistance, and guidance for application of the paint system as needed.

3.06 PROTECTION

- A. Protect painted areas against damage until paint system is fully cured

3.07 WASTE MANAGEMENT

- A. General Requirements:
 - 1. Place materials defined as hazardous or toxic waste in designated containers.
 - 2. Return solvent and oil soaked rags for contaminant recovery and laundering or for proper disposal.
 - 3. Do not dispose of paints or solvents by pouring on ground. Place in designated containers for proper disposal.

- B. Containment/Disposal Requirements:
 - 1. Surface Preparation Debris Containment:
 - a. When required by federal, state or local regulation, entire tank and structure shall be enclosed and surface preparation debris contained.
 - b. Refer to SSPC Guide 6 for Containing Debris Generated during Paint Removal Operations.
 - 2. Disposal of Surface Preparation Debris:
 - a. Refer to SSPC Guide 7 for the Disposal of Lead-Contaminated Surface Preparation Debris.
 - b. Surface preparation debris shall be disposed of in compliance with applicable federal, state and local regulations.
 - 3. Containment/Disposal Costs:
 - a. Painter shall be responsible for costs associated with containment and waste disposal that may result from execution of this Project.

3.08 ONE YEAR ANNIVERSARY INSPECTION

- A. Owner shall set a date for a one year inspection.
- B. Inspection will be attended by an owner's representative, engineer, and painting contractor.
- C. Any deficiencies in the coatings system will be repaired at the contractor's expense

END OF SECTION

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TNEMEC-STORAGE TANK COATING SPECIFICATION

PART 1 - GENERAL

1.01 SCOPE

- A. The work of this section includes the surface preparation and painting of all surfaces related to the storage tank as indicated in the drawings and specifications.

1.02 RELATED WORK SPECIFIED ELSEWHERE (if applicable)

- A. Coating and painting of all other surfaces is specified in Section 9.

1.03 REFERENCE SPECIFICATIONS AND STANDARDS

- A. Without limiting the general aspects of other requirements of these specifications, all surface preparation, coating and painting of surfaces shall conform to the applicable requirements of the Steel Structures Painting Council, NACE, ICRI, CSP and the manufacturer's printed instructions.
- B. The Owner's decision shall be final as the interpretation and/or conflict between any of the referenced specifications and standards contained herein.

1.04 CONTRACTOR

- A. The Contractor shall have five years practical experience and successful history in the applications of specified products in similar projects. He shall substantiate this requirement by furnishing a list of references and job completions.
- B. Applicator must successfully demonstrate to the product manufacturer the ability to apply the material correctly and within the confines of the specifications. The Contractor must provide a letter from the manufacture stating their acceptance of the Contractor for this project to apply these products.
- C. The Contractor shall possess the applicable license to perform the work as herein described and as specified by local, state and federal laws. The Contractor's licenses shall appear in the lower left-hand corner of the envelope containing the bids.
- D. The Contractor shall provide a site mock up with each paint system as a representative of how the systems shall be installed and their final appearance, which is to be approved by the Owner before any work is started. For overcoat projects this mock up shall be used to test for adequate adhesion. This approved mock up shall be the quality standard for the rest of the project.

1.05 QUALITY ASSURANCE

- A. General: Quality assurance procedures and practices shall be utilized to monitor all phases of surface preparation, application, and inspection throughout the duration of the project. Procedures or practices not specifically defined herein may be utilized provided they meet recognized and accepted professional standards and are approved by the Owner.
- B. Surface Preparation: Surface preparation will be based upon comparison with: "Pictorial Surface Preparation Standards for Painting Steel Surfaces", SSPC-Vis-1 and ASTM Designation D2200; "Standard Methods of Evaluating Degree of Rusting on Painted Steel Surfaces" SSPC-Vis-2 and ASTM Designation D610; "Visual Standard for Surfaces of New Steel Airblast Cleaned with Sand Abrasive" or "Guideline for Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and and Polymer Overlays" and ICRI CSP Surface Profile Chips.

- C. Application: No coating or paint shall be applied: When the surrounding air temperature or the temperature of the surface to be coated is below the minimum required temperature for the specified product; to wet or damp surfaces or in fog or mist; when the temperature is less than 5 degrees F. above the dewpoint; when the air temperature is expected to drop below 40 degrees F. within six hours after application of coating. Dewpoint shall be measured by use of an instrument such as a Sling Psychrometer in conjunction with U.S. Department of Commerce Weather Bureau Psychrometric Tables. If above conditions are prevalent, coating or painting shall be delayed or postponed until conditions are favorable. The day's coating or painting shall be completed in time to permit the film sufficient drying time prior to damage by atmospheric conditions.
- D. Thickness and Holiday Checking: Thickness of coatings and paint shall be checked with a non-destructive, magnetic type thickness gauge. The integrity of coated interior surfaces shall be tested with an approved inspection device. Non-destructive holiday detectors shall not exceed the voltage recommended by the manufacturer of the coating system. For thicknesses between 10 and 20 mils (250 microns and 500 microns), a non-sudsing type wetting agent, such as Kodak Photo-Flo, may be added to the water prior to wetting the detector sponge. All pinholes shall be marked, repaired in accordance with the manufacturer's printed recommendations, and retested. No pinholes or other irregularities will be permitted in the final coating.
- E. Inspection Devices: The Contractor shall furnish, until final acceptance of coating and painting, inspection devices in good working condition for detection of holidays and measurement of dry-film thickness of coating and paint. The Contractor shall also furnish U.S. Department of Commerce; National Bureau of Standard certified thickness calibration plates to test accuracy of dry film thickness gauges and certified instrumentation to test accuracy of holiday detectors.
- F. All necessary testing equipment shall be made available for the Owner's use at all times until final acceptance of application. Holiday detection devices shall be operated in the presence of the Owner.

1. 06 SAFETY AND HEALTH REQUIREMENTS

- A. General: In accordance with requirements set forth by regulatory agencies applicable to the construction industry and manufacturer's printed instructions and appropriate technical bulletins and manuals, the Contractor shall provide and require use of personnel protective lifesaving equipment for persons working on or about the project site.
- B. Head and Face Protection and Respiratory Devices: Equipment shall include protective helmets, which shall be worn by all persons while in the vicinity of the work. In addition, workers engaged in or near the work during sandblasting shall wear eye and face protection devices and air purifying halfmask or mouthpiece respirators with appropriate filters. Barrier creams shall be used on any exposed areas of skin.
- C. Ventilation: Where ventilation is used to control hazardous exposure, all equipment shall be explosion-proof. Ventilation shall reduce the concentration of air contaminant to the degree a hazard does not exist. Air circulation and exhausting of solvent vapors shall be continued until coatings have fully cured.
- D. Sound Levels: Whenever the occupational noise exposure exceeds maximum allowable sound levels, the Contractor shall provide and require the use of approved ear protective devices.
- E. Illumination: Adequate illumination shall be provided while work is in progress, including explosion-proof lights and electrical equipment. Whenever required by the Owner, the Contractor shall provide additional illumination and necessary supports to cover all areas to be inspected. The Owner shall determine the level of illumination for inspection purposes.

- F. Confined Space: When applicable it is mandatory that all work be performed in compliance with OSHA'S rules and regulations for working in confined space. Atmospheres within confined spaces as defined by the Occupational Safety and Health Administration are classified as being either a Class A, Class B or Class C environment.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Materials specified are those that have been evaluated for the specific service. Products of the Tnemec Co. are listed. No substitutions will be allowed.
- B. All materials shall be brought to the jobsite in original, sealed containers. They shall not be used until the Owner has inspected contents and obtained data from information on containers or labels. Materials exceeding storage life recommended by the manufacturer shall be rejected.
- C. All coatings and paints shall be stored in enclosed structures to protect them from weather and excessive heat or cold. Flammable coatings or paint must be stored to conform to City, County, State and Federal safety codes for flammable coating or paint materials. At all times, coating and paints shall be protected from freezing.
- D. A NACE Level 3 certified technical representative from the paint manufacturer shall visit the job site to climb the tank and to support the Contractor's personnel and/or the Owner as needed and/or requested. Visits shall be made on a weekly basis as a minimum or as needed to review hold points for the Owner. Additional visit shall be made as needed and/or requested by Owner or Contractor. 48 hours' notice is required by the Contractor for each hold point inspection.
- E. All parties, to include the owner or owners representative, architect, general contractor, installer, any subs and the product manufacture, shall meet prior to any work is started to review the spec and discuss job specific expectations, need and requirements
- F. Coating Systems

Interior Steel Tank Coating System

Surface Preparation: SSPC-SP10/NACE 2 Near White Metal Blast Cleaning. All unwelded seams, lapped plates, joints and other inaccessible areas will be filled. The surface shall be clean and dry before painting.

1st Coat: Zinc Rich Aromatic Urethane applied at 2.5 – 3.5 dry mils.
(performance equal to Tnemec Series 91H20 Tneme-Zinc)

Stripe Coat: NSF Approved Polyamidoamine Epoxy applied at 2.0 – 8.0 dry mils.
(performance equal to Tnemec Series N140 Pota-Pox Plus)

2nd Coat: NSF Approved Polyamidoamine Epoxy applied at 4.0 – 8.0 dry mils.
(performance equal to Tnemec Series N140 Pota-Pox Plus)

3rd Coat: NSF Approved Polyamidoamine Epoxy applied at 4.0 – 8.0 dry mils.
(performance equal to Tnemec Series N140 Pota-Pox Plus)

Exterior Steel Tank Coating System

Surface Preparation: Power wash the entire exterior surface using 3,500 PSI with a rotating turbo nozzle to remove all loose paint, rust, dirt, scale and foreign matter. Great Lakes Laboratories Extra Muscle Prepaint Cleaner, CHLOR*WASH or similar shall be used prior to power washing to help remove all the existing contaminants. Ensure all solubles have been removed. SSPC-SP3 Power Tool Cleaning to all rust, corrosion and film issues areas, feather the edges to a tight and smooth transition and spot prime all cleaned areas with a Modified Polyamidoamine Epoxy (performance equal to Tnemec Series 135 Chembuild) @ 2.0 – 4.0 dry mils. The surface shall be clean and dry before painting.

1st Coat: Modified Polyamidoamine Epoxy applied at 2.0 – 4.0 dry mils.
(performance equal to Tnemec Series 135 Chembuild)

2nd Coat: Aliphatic Acrylic Polyurethane applied at 2.0 – 3.0 dry mils.
(performance equal to Tnemec Series 73 Endura Shield)

3rd Coat: Advanced Thermoset Solution Fluoropolymer applied at 2.0 – 3.0 dry mils.
(performance equal to Tnemec Series 700 Hydro-Flon)

Lettering / Logo: Two coats of a Advanced Thermoset Solution Fluoropolymer(performance equal to Tnemec Series 700-color HydroFlon) shall be used for the lettering/ logo applied at a dry film thickness of 2.0 – 3.0 per coat.

Calking: Fill all gaps between the concrete foundation and the bottom plates of the steel tank with a Modified Polyurethane (performance equal to Tnemec Series 265 Elasto-Shield TG). Overlap 1/8 inch on both sides of the gap.

Concrete Foundation: The concrete foundation shall be cleaned and shall receive two coats of 100% Solid Inorganic Hybrid Water-Based Epoxy (performance equal to Tnemec Series 27WB-15BL Typoxy) at 4.0 – 8.0 dry mils.

PART 3 – EXECUTION

3.01 GENERAL

- A. All surface preparation, coating and painting shall conform to applicable standards of the Steel Structures Painting Council, NACE ICRI, CSP and the manufacturer's printed instructions. Material applied prior to approval of the surface by the Owner shall be removed and reapplied to the satisfaction of the Owner at the expense of the Contractor.
- B. All work shall be performed by skilled craftsmen qualified to perform the required work in a manner comparable with the best standards of practice. Continuity of personnel shall be maintained and transfers of key personnel shall be coordinated with the Owner.
- C. The Contractor shall provide an English speaking supervisor at the work site during cleaning and application operations. The supervisor shall have the authority of sign change orders, coordinate work, and make decisions pertaining to the fulfillment of the contract.
- D. Dust, dirt, oil, grease or any foreign matter that will affect the adhesion or durability of the finish must be removed by washing with clean rags dipped in an approved cleaning solvent and wiped dry with clean rags.

- E. The Contractor's coating and painting equipment shall be designed for application of materials specified and shall be maintained in first class working condition. Compressors shall have suitable traps and filters to remove water and oils from the air. Contractor's equipment shall be subject to approval of the Owner.
- F. Application of the first coat shall follow immediately after surface preparation and cleaning and before rust bloom or flash rusting occurs. Any cleaned areas not receiving first coat within this period shall be recleaned prior to application of first coat.

3.02 SURFACE PREPARATION

- A. The latest revision of the following surface preparation specifications of the Steel Structures Painting Council and NACE shall form a part of this specification:
 - 1. Solvent Cleaning (SSPC-SP1): Removal of oil, grease, soil and other contaminants by use of solvents, emulsions, cleaning compounds, steam cleaning or similar materials and methods which involve a solvent or cleaning action.
 - 2. Hand Tool Cleaning (SSPC-SP2): Removal of loose rust, loose mill scale and other detrimental foreign matter to degree specified by hand chipping, scraping, sanding and wire brushing.
 - 3. Power Tool Cleaning (SSPC-SP3): Removal of loose rust' loose mill scale and other detrimental foreign matter to degree specified by power wire brushing, power impact tools or power sanders.
 - 4. Brush-Off Blast Cleaning (SSPC-SP7/NACE 4): Brush-off blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose coating. Tightly adherent mill scale, rust, and coating may remain on the surface. Mill scale, rust, and coating are considered tightly adherent if they cannot be removed by lifting with a dull putty knife after abrasive blast cleaning has been performed.
 - 5. Commercial Blast Cleaning (SSPC-SP6/NACE 3): Blast cleaning until at least 66 percent of each element of surface area is free of all visible residues.
 - 6. Near White Blast Cleaning (SSPC-SP10/NACE 2): Blast cleaning to nearly white metal cleanliness, until at least 95 percent of each element of surface area is free of all visible residues.
 - 7. Surface Preparation of Concrete (SSPC-SP13/NACE 6): This standard gives requirements for surface preparation of concrete by mechanical, chemical, or thermal methods prior to the application of bonded protective coating or lining systems.
 - 8. Power Tool Cleaning to Bare Metal (SSPC-SP11): This standard covers the requirements for power tool cleaning to produce a bare metal surface and to retain or produce a minimum 25 micrometer (1.0 mil) surface profile. This standard is suitable where a roughened, clean, bare metal surface is required, but where abrasive blasting is not feasible or permissible.
- B. Blast cleaning for all surfaces shall be by dry method unless otherwise directed.
- C. Particle size of abrasives used in blast cleaning shall be that which will produce a 1.5 – 2.0 mil (37.5 microns - 50.0- microns) surface profile or in accordance with recommendations of the manufacturer of the specified coating or paint system to be applied.

- D. Abrasive used in blast cleaning operations shall be new, washed, graded and free of contaminants that would interfere with adhesion of coating or paint and shall not be reused unless specifically approved by the Owner.
- E. During blast cleaning operations, caution shall be exercised to insure that surrounding existing coatings or paint are not exposed to abrasion from blast cleaning.
- F. The Contractor shall keep the area of his work and the surrounding environment in a clean condition. He shall not permit blasting materials to accumulate as to constitute a nuisance or hazard to the accomplishment of the work, the operation of the existing facilities, or nuisance to the surrounding environment.
- G. Blast cleaned surfaces shall be cleaned prior to application of specified coatings or paint. No coatings or paint shall be applied over damp or moist surfaces.
- H. Specific Surface Preparation: Surface preparation for the specific system shall be as noted in Section 2.01 Paragraphs D.

3.03 APPLICATION, GENERAL

- A. Coating and paint application shall conform to the requirements of the Steel Structures Painting Council Paint Application Specification SSPC-PA1, latest revision, for "Shop, Field and Maintenance Painting," and the manufacturer of the coating and paint materials.
- B. Thinning shall be permitted only as recommended by the manufacturer approved by the Owner, and utilizing the thinners stated in Section 2.01 Paragraphs D.
- C. Each application of coating or paint shall be applied evenly, free of brush marks, sags, runs, with no evidence of poor workmanship. Care shall be exercised to avoid lapping on glass or hardware. Coatings and paints shall be sharply cut to lines. Finished surfaces shall be free from defects or blemishes.
- D. Protective coverings or drop cloths shall be used to protect floors, fixtures, and equipment. Care shall be exercised to prevent coatings or paint from being spattered onto surfaces that are not to be coated or painted. Surfaces from which materials cannot be removed satisfactorily shall be recoated or repainted as required to produce a finish satisfactory to the Owner.
- E. When two coats of coating or paint are specified, where possible, the first coat shall contain sufficient approved color additive to act as an indicator of coverage or the two coats must be of contrasting color.
- F. Film thickness per coat specified in Section 2.01 Paragraphs D are minimum required. If roller application is deemed necessary, the Contractor shall apply additional coats as to achieve the specified thickness.
- G. All material shall be applied as specified.
- H. All interior welds, edges, ladders, manways and other irregular surfaces shall receive a brush coat of the specified product prior to application of the second coat.

3.04 COATING SYSTEMS APPLICATION

- A. After completion of surface preparation as specified for the specific system, materials shall be applied as noted in Section 2.01 Paragraphs D.

3.05 COLOR SCHEME

- A. Colors: Submittals will be made to the Owner for approval prior to application.

3.06 SOLVENT VAPOR REMOVAL

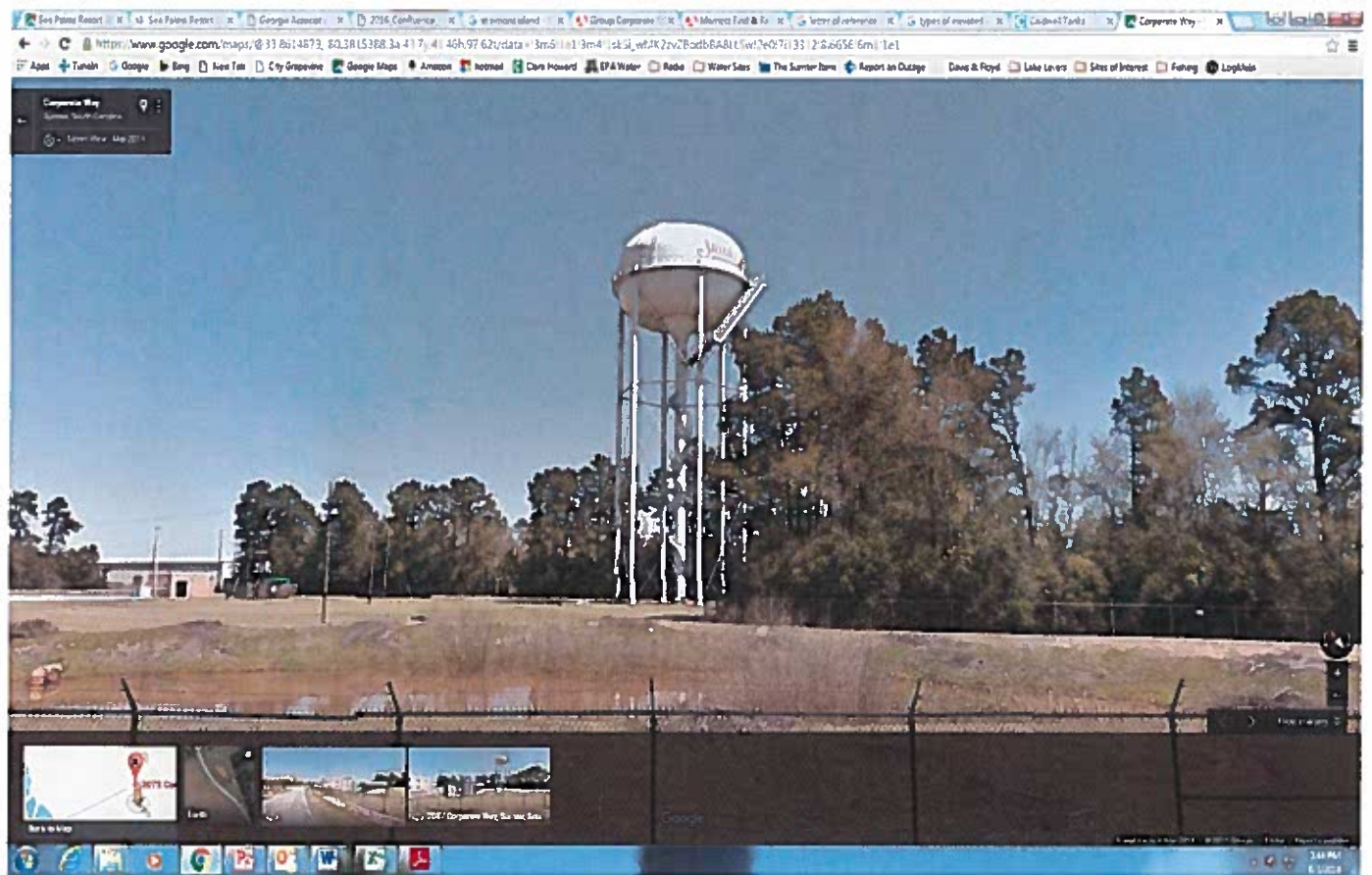
- A. Where appropriate all solvent vapors shall be completely removed by suction-type exhaust fans and blowers before placing in operating service.

3.07 CLEAN UP

- A. Upon completion of the work, all staging, scaffolding, and containers shall be removed from the site or destroyed in a manner approved by the Owner. Coating or paint spots and oil or stains upon adjacent surfaces shall be removed and the jobsite cleaned. All damage to surfaces resulting from the work of this section shall be cleaned, repaired, or refinished to the satisfaction of the Owner at no cost to the Owner.

3.8 WARRANTY

- A. The Contractor will warrant the work free of defects in material and workmanship for a period of one year from the acceptance of the work. At the end of one year, the Contractor will return for a one-year anniversary inspection of the work. The Contractor will correct any deficiencies found with no cost to the owner. Inspections shall be conducted in to conform to owners spec.



City of Sumter Elevated Tank Logo



FONTS AND COLORS:

FONTS

Ampervand: (Sumter)

Gotham Bold: (CITY OF / UNCOMMON PATRIOTISM)

COLORS

Pantone 546C: CITY OF / UNCOMMON PATRIOTISM

Pantone 140C: Sumter

Pantone 1685C: Wing